REMARKS

Claims 1-6 are pending in the application. The Examiner has objected claims 1 because it contains limitations drawn to an apparatus and process of manufacture. The Examiner also has objected claims 1-6 under 35 U.S.C. §103(a) as being unpatentable over Honda et al. (US Patent No. 4,109,709) in view of Katayama (U.S. Patent No. 3,921,710). Applicant respectfully traverses these rejections.

With respect to the objection of claim 1, Applicant has amended claim 1 so that the subject matter claimed by claim 1 is limited to an apparatus.

With respect to the rejection of claims 1 - 6 under 35 U.S.C. §103(a) as being unpatentable over Honda et al. in view of Katayama, Honda's heat pipe comprises an outer tubular material, a wick of metal fibers, **an inner tubular material covered with the wick and inserted in the outer tubular material** and heat transfer volatile liquid confined in the closed outer tubular. (See Abstract, and figures 1A – 4d at Honda). Therefore, the inner tubular material is a necessary and essential element of Honda's heat pipe design. The two independent claims 1 and 6 of Honda clearly indicate that Honda's invention is a wick-secured inner tubular to be disposed within an elongated outer tubular to form the heat pipe. Although the Examiner extracts several structural references from Honda to support his rejections, nevertheless, the Examiner overlooks the fundamental requirement of Honda, an inner tubular material. Honda discloses of using "other fibers" with the wick-covered inner tube. Honda states that " it is not always necessary that the wick-covered inner tube be wound with a yarn of metallic or other fibers or with metal wire... If a yarn of such other fibers is used in securing the wick to the inner tube ... the heat pipe blank so obtained **may be heated or subjected to a suitable chemical treatment to remove the yarn thereby releasing the wick**... from the restraint by the yarn and obtaining a very satisfactory capillary action by the released wick." (Honda column 8, ll. 23 – 35). Honda uses a yarn or other fibers with the metal fiber wick to restraint the wick until the

wick-covered inner tube is inserted into the outer tubular, then the yarn and other fibers will be removed by heat or chemical treatment. The amended claim 1 of the current application specifies that the wick structure uses two different fibers, one has a higher melting points than the pipe has and another fiber has a lower melting point than the pipe has so that the low melting point fiber will adhesive the wick structure to the inner wall of the heat pipe after sintering. The current application does not require an inner tubular as Honda does, and the purpose of using two different melting points fibers by the current invention is different from Honda's teaching. Katayama discloses a wick made up of a ribbon-shaped material of relatively narrow width wound in the form of a helix, where a multiple layers with each layer is wound in opposite direction from the previous layer. Applicant respectfully submits that not all elements cited in Applicant's claims are taught or suggested within the prior art individually or their combination. Therefore, Applicant respectfully disagrees with the Examiner's rejections.

If the Examiner believes that a further telephonic interview will facilitate allowance of the claims, he is respectfully requested to contact the undersigned at (610) 446-5886. For the reasons stated above, Applicants respectfully assert that the pending claims are in condition for allowance. Reconsideration and allowance of the pending claims are respectfully requested.

Respectfully submitted,

Hul-Chen Hsu

By _____
Kao H. Lu, Esquire
Registration No. 43,761
(610) 446-5886

686 Lawson Ave
Havertown, Pa 19083

In the **PATENT APPLICATION** of:	Hul-Chun Hsu	Our File: OP094000390
Application No.:	10/729,064	Date: June 5, 2005
Filed:	December 05, 2003	
For:	Heat Pipe having Fiber Wick Structure	
Group:	3743	
Examiner:	McKinnon, Terrell L.	